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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/501,670

01/18/2005

Hideji Tajima

10287.65

2325

27683 7590 04/25/2011

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EXAMINER

POPA, ILEANA

ART UNIT

PAPER NUMBER

1633

MAIL DATE

DELIVERY MODE

04/25/2011

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/501,670	TAJIMA, HIDEJI	
	Examiner	Art Unit	
	ILEANA POPA	1633	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 11 February 2011.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,4,5,8-11,13,14 and 16-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,4,5,8-11,13,14 and 16-20 is/are rejected.
- 7) ☒ Claim(s) 18 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>02/11/2011</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. Claims 2, 3, 6, 7, 12, and 15 have been cancelled. Claims 1 and 14 have been amended.

Claims 1, 4, 5, 8-11, 13, 14, and 16-20 are pending and under examination.

2. The following rejections are withdrawn in response to the amendments to the claims filed on 02/11/2011:

The rejection of claims 1, 4, 5, 8, 9, 13, 14, and 16-20 under 35 U.S.C. 103(a) as being unpatentable over Tajima (U.S. Patent No. 5,895,631), in view of each Moore (Current Protocols in Pharmacology, 1998, A.3C.1-A.C3.7), Gatlin et al. (Anal. Biochem., 1998, 263: 93-101), and Kussmann-Gerber et al. (Analytical Biochemistry, 1999, 271: 102-105); and

The rejection of claims 1, 4, 5, 8-11, 13, 14, and 16-20 under 35 U.S.C. 103(a) as being unpatentable over Tajima taken with each Moore, Gatlin et al., and Kussmann-Gerber et al., in further view of both Tajima (U.S. Patent No. 5,919,706, of record) and Tajima (U.S. Patent No. 6,100,079).

Claim Objections

3. Claim 18 is objected to under 37 CFR 1.75(c) as being in improper form because a multiple dependent claim cannot depend from another multiple dependent claim.

New Rejections

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1, 4, 5, 8, 9, 13, 14, and 16-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tajima.

Tajima teaches a pipette device for separating DNA, the device comprising a drawing/discharging section having a nozzle which connects to a detachable cylinder chip having an inlet/outlet, wherein the cylinder chip is loaded with a silica membrane filter to capture the DNA (i.e., a carrier housing comprising a carrier which does not pass through the inlet/outlet the position of which is maintained), wherein the drawing/discharging section draws fluid into the cylinder chip via the inlet/outlet and discharges the fluid out of the cylinder chip via the same inlet/outlet; the chip could contain filters performing functions other than capturing the DNA (i.e., the chip contains a plurality of different carriers) and the cylinder chip comprises a small diameter section in contact with the fluid to be drawn, an intermediate diameter section which holds the filter at its bottom, and a large diameter section (i.e., opening) detachably connected to the nozzle (claims 1, 4, 5, 8, 13, 14, and 17-20) (column 3, lines 50-67; column 4, lines 22-44; column 5, lines 14-22; column 6, lines 17-67; column 7, lines 7-27, 65, and 67; column 8, lines 1-7; column 12, lines 7 and 8; column 14, lines 23-33; Fig. 1 and 7).

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Tajima teaches that the pipette device has a transferring section capable of transferring the carrier housing with respect to outside containers comprising different reagents (claims 1 and 16) (column 7, lines 37-48, column 8, lines 8-67). With respect to the limitations of adhesion prevention section (claims 1, 9 and 14) such was common practice in the prior art; one of skill in the art would have known to use adhesion prevention and holding sections when needed.

Tajima et al. do not teach their large diameter section as comprising a filter (claims 19 and 20). However, one of skill in the art would know to provide the large diameter section with a filter; one of skill in the art would be motivated to do so in order to avoid contaminating the pipette nozzle.

Thus, the claimed invention was *prima facie* obvious at the time it was made.

6. Claims 1, 4, 5, 8-11, 13, 14, and 16-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tajima, in view of both Tajima (U.S. Patent No. 5,919,706, of record) and Tajima (U.S. Patent No. 6,100,079, of record).

The teachings of Tajima are applied as above for claims 1, 4, 5, 8, 9, 13, 14, and 16-20. Although Tajima teaches the device as being useful for separating high molecular substances of interest, they do not specifically teach monitoring separation by using a translucent chip (i.e., a translucent carrier housing) and an outside apparatus for measuring luminescence on the carrier (claims 10 and 11). However, doing such is suggested by the prior art. For example, Tajima '079 teaches that pipette devices such as the ones disclosed by Tajima can be used to monitor the binding of high molecular

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substances of interest to carriers, wherein monitoring takes place via luminescence (column 5, lines 40-54; column 7, lines 53-65). Although Tajima '079 does not specifically disclose translucent chips and an outside measuring apparatus, using such is taught by the prior art (see Tajima '706, column 3, lines 44-50; column 7, lines 34-45). It would have been obvious to one of skill in the art, at the time the invention was made, to modify Tajima's device according to the teachings of Tajima '079 and Tajima '706, to achieve the predictable result of monitoring the separation of the macromolecule of interest. With respect to the limitation of the carrier housing having a side face made in a plane (claim 11), one of skill in the art would know to modify the chip (i.e., the carrier housing) according to the measuring equipment used. Thus, the claimed invention was *prima facie* obvious at the time it was made.

Conclusion

7. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any

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extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to ILEANA POPA whose telephone number is (571)272-5546. The examiner can normally be reached on 9:00 am-5:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Joseph Woitach can be reached on 571-272-0739. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Ileana Popa/
Primary Examiner, Art Unit 1633

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